

DECEMBER 4.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-nine members present.

*On the Introduction and Disappearance of Plants.*—Mr. ISAAC C. MARTINDALE spoke of the appearance of plants in certain localities, where, heretofore, they had not been detected, and of their disappearance from sections where formerly they were quite plentiful. He stated that *Pinus mitis* was at one time abundant in this region, and extended northward into New England; but that it was believed now to have entirely disappeared from its northern localities, and it was thought by some persons to have disappeared from New Jersey also; he had, however, detected one tree near Gloucester City the past summer, and had recently found on a high edge of ground near Moorestown a strip of woodland, which contained a large number of trees, nearly all of which were from eighty to one hundred feet in height, and eighteen inches or more in diameter at the base; a few trees of the same species were growing in an adjoining field, where, the owner of the land informed him, grain had been harvested in the early part of the present century, showing the growth of wood to have been very rapid. On examining these trees he found evidence of a periodicity in their fruiting; it being well known that the species of pines in this section require two years to perfect their fruit. This year a considerable number of cones had set on the branches, but those which formed last year, and were now full grown, were very few indeed, and the mass of cones which were first noticed were chiefly those which matured last year or before, and had long since opened and discharged all of their seed. As is well understood among farmers and nurserymen, apple-trees do not produce abundantly every year, but seem to have periods of great fruitfulness. He thought a similar condition existed in *Pinus mitis*, which might be offered as one reason for its gradual disappearance, it being evident in view of the doctrine of "the survival of the fittest" that a tree which formed fruit once in two years, which fruit required two years to come to maturity, could not maintain a position as if the conditions were otherwise. Should any of the occurrences of early or late frosts, severe drought, an extreme degree of rain-fall, prevail on the fruit-bearing years, which would not be an unusual thing, it is apparent that the chances of perpetuating its kind would be lessened in a corresponding degree. As evidence of these conditions having to some extent existed in the past he found that but very few of the seeds which have been perfected had germinated so as to produce young trees; the greater

part of the trees now standing appeared to be on the decline, and when they are gone there is but little to build a hope on for a succession of the same species.

*Circumspection of Ants.*—Professor LEIDY remarked that, a number of years ago, he had been led to an observation on the little red ant, sometimes a great pest to our dwellings, which would indicate a ready disposition to become circumspect. When he purchased his present residence, while it was undergoing some repairs, he noticed a fragment of bread, left by a workman in one of the second-story rooms, swarming with ants. Apprehending that the house was seriously infested, to ascertain whether it was so he placed a piece of sweet cake in every room from the cellar to the attic. At noon every piece was found covered with ants. Having provided a cup of turpentine oil, each piece was picked up with forceps and the ants tapped into the oil. The cake was replaced, and in the evening was again found covered with ants. The same process was gone through the following two days, morning, noon, and night. The third day the number of ants had greatly diminished, and on the fourth there were none. He at first supposed the ants had all been destroyed, but in the attic he observed a few feasting on some dead house flies, which led him to suspect that the remaining ants had become suspicious of the sweet cake. He accordingly distributed through the house pieces of bacon, which were afterwards found swarming with ants. This was repeated with the same result for several days, when, in like manner with the cake, the ants finally ceased to visit the bacon. Pieces of cheese were next tried, with the same results; but with an undoubted thinning in the multitude of ants. When the cheese proved no longer attractive, recollecting the feast on dead flies in the attic, dead grasshoppers were supplied from the garden. These, again, proved too much for the ants; and, after a few days' trial, neither grasshoppers nor anything else attracted them; they appear to have been thoroughly exterminated, nor has the house since been infested with them.

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DECEMBER 11

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-six members present.

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DECEMBER 18.

The President, Dr. RUSCHENBERGER, in the chair.

Twenty-nine members present.

The death of John McAllister, Jr., was announced.